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ABSTRACT OF THE DISCLOSURE

A motherboard with reduced power consumption is disclosed. The motherboard has a memory module slot, a DDR termination array, and a control chip. The DDR termination array couples to the memory module slot and provides a termination resistor that has one terminal coupled to a voltage source. The control chip provides a control signal. When the motherboard enters a power saving mode or before the memory module being inserted in the memory module slot, the control signal gives an indication to the DDR termination array for cutting off the connection between the termination resistor and the memory module slot. A switch and several termination resistors may substitute the DDR termination array as requirements. The control chip provides the control signal to open the switch and therefore cuts off the connections between termination resistors and the voltage source to achieve the power-conserving purpose.